

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A system for sorting a mixed stream of different colored objects into separate groups of same colored objects comprising:
a plurality of first stage sorting devices each for receiving an input feed of different colored objects and sorting the different colored objects into a plurality of first stage output feeds, wherein the plurality of first stage sorting devices operate simultaneously, ~~wherein at least one output feed in the plurality of output feeds is a subsequent input feed to one or more sorting devices in the plurality of sorting devices~~ and further wherein at least one of the plurality of sorting devices sorts the different colored objects into more than two output feeds;
a second stage sorting device configured to receive at least one of the first stage output feeds, thereby forming a second stage output feed; and
a third stage sorting device configured to directly receive at least one of the first stage output feeds which bypass the second stage sorting device, and the second stage output feed, thereby forming a third stage output feed.
2. (currently amended) The system according to claim 1 wherein the ~~one or more~~ second stage sorting devices sort the at least one ~~subsequent input~~ first stage output feeds into a plurality of ~~further sorted~~ second stage output feeds.
3. (currently amended) The system according to claim 1 ~~further comprising a final sorting device~~, wherein the ~~final~~ third stage sorting device sorts ~~one or more subsequent input the~~ at least one of the first stage output feeds and the second stage output feed into a plurality of ~~final~~ third stage output feeds.
4. (currently amended) The system according to claim ~~[[1]]~~ 3 wherein at least one of the third stage output feeds contains objects of a desired color.
5. (currently amended) The system according to claim ~~[[1]]~~ 3 wherein at least one of the third stage output feeds contains undesired objects, wherein the undesired objects are directed to a rejection bin.

6. (currently amended) The system according to claim 5 wherein at least one of the third stage output feeds contains flint objects.
7. (currently amended) The system according to claim 3 wherein the ~~final~~ third stage sorting device directs each of the plurality of ~~final~~ third stage output feeds into a plurality of corresponding storage bins.
8. (original) The system according to claim 1 wherein the objects are glass cullets.
9. (original) The system according to claim 8 wherein each sorting device sorts the received different cullets based on light transmission properties of the colored cullets.
10. (original) The system according to claim 9 wherein each sorting device further comprises a light emitting source for transmitting at least one light of predetermined frequency through the glass cullet.
11. (original) The system according to claim 10 wherein each sorting device further comprises a sensor module coupled to the light emitting source and configured to receive light transmitted through the glass cullet, wherein the sorting device determines the color of the cullet from the at least one light received.
12. (original) The system according to claim 10 wherein the light emitting source includes one or more of a red light emitting diode, a green light emitting diode, a blue light emitting diode and an infrared light source.
13. (previously presented) The system according to claim 11 wherein the sorting device further comprises at least one actuator coupled to the sensor module, wherein the at least one actuator directs the cullet to one of the output feeds depending on a signal provided by the sensor module.
14. (previously presented) The system according to claim 1 further comprising at least one actuator coupled for directing the object to one of the output feeds depending on a color characteristic of the object.

15. (currently amended) A method of effectively sorting a group of different colored objects into separate groups of similar colored objects comprising:
 - a. receiving an input feed having a plurality of objects; and
 - b. sorting the input feed at a plurality of first stage sorting devices into ~~more than two~~ a plurality of first stage output feeds, ~~wherein at least one output feed in the output feeds serves as a subsequent input feed;~~ wherein sorting occurs simultaneously for the input feeds;
 - c. sorting at least one of the first stage output feeds at a second stage sorting device thereby forming a second output feed; and
 - d. sorting at least one of the first stage output feeds received directly from a corresponding one of the first stage sorting devices, and the second stage output feed, at a third stage sorting device, thereby forming a third stage output feed.
16. (currently amended) The method according to claim 15 ~~further comprising further sorting the at least one subsequent input feed wherein the third stage sorting device sorts~~ into a plurality of ~~subsequent~~ third stage output feeds.
17. (canceled).
18. (currently amended) The method according to claim ~~17~~ 16 further comprising directing each of the plurality of ~~final~~ third stage output feeds into a corresponding container.
19. (currently amended) The method according to claim 15 wherein at least one of the third stage output feeds contains undesired objects, wherein the undesired objects are directed to a rejection bin.
20. (currently amended) The method according to claim 15 wherein at least one of the third stage output feeds contains flint objects.
21. (currently amended) The method according to claim 15 wherein at least one of the third stage output feeds substantially contains objects of a desired color.
22. (original) The method according to claim 15 wherein the objects are glass cullets.

23. (original) The method according to claim 22 wherein the cullets are sorted based on light transmission properties of the colored cullets.
24. (original) The method according to claim 23 wherein sorting further comprises emitting at least one light of predetermined frequency through the cullet.
25. (original) The method according to claim 24 wherein the at least one light includes one or more of a red light emitting diode, a green light emitting diode, a blue light emitting diode and an infrared light source.
26. (original) The method according to claim 24 wherein sorting further comprises sensing light transmitted through the cullet and determining a color characteristic of the cullet from the light received.
27. (previously presented) The method according to claim 26 wherein sorting further comprises directing the cullet to one of the output feeds depending on the color characteristic determined.
28. (previously presented) The method according to claim 15 further comprising directing the object to one of the output feeds depending on a color characteristic of the object being determined.
29. (currently amended) A method of effectively sorting different colored objects into a plurality of groups of objects having a similar desired quality, the method comprising:
 - a. providing a plurality of first stage sorting devices, wherein each first stage sorting device receives a mixture of objects of different qualities and separates the different received objects into two or more first stage output feeds, each first stage output feed having objects of a substantially similar quality, wherein the plurality of first stage sorting devices operate simultaneously, further wherein at least one of the plurality of first stage sorting devices sorts the different colored objects into more than two first stage output feeds; and
 - b. ~~configuring the plurality of sorting devices such that at least one output feed in each of one or more sorting devices in the plurality is input into a corresponding~~

- ~~subsequent sorting device~~ sorting at least one of the first stage output feeds at a second stage sorting device thereby forming a second output feed; and
- c. sorting at least one of the first stage output feeds received directly from a corresponding one of the first stage sorting devices, and the second stage output feed, at a third stage sorting device, thereby forming a third stage output feed.
30. (canceled).
31. (currently amended) The method according to claim 29 ~~further comprising a final sorting device~~, wherein the ~~final~~ third stage sorting device sorts ~~at least one received subsequent input feed~~ the third stage sorting device sorts into a plurality of ~~final~~ third stage output feeds.
32. (currently amended) The method according to claim 29 further comprising configuring a rejection bin to store at least one of the third stage output feeds containing undesired objects.
33. (currently amended) The method according to claim 32 wherein at least one of the third stage output feeds contains flint objects.
34. (currently amended) The method according to claim 33 wherein at least one of the third stage output feeds contains objects of a desired color.
35. (currently amended) The method according to claim 31 wherein the ~~final~~ third stage sorting device directs each of the plurality of ~~final~~ third stage output feeds into a corresponding storage bin.
36. (original) The method according to claim 29 wherein the objects are glass cullets.
37. (original) The method according to claim 36 wherein each sorting device sorts the received glass cullets based on light transmission properties of the glass cullets.

38. (currently amended) The method according to claim 37 wherein ~~the~~ each sorting device further comprises means for transmitting at least one light of predetermined frequency through the glass cullet.
39. (original) The method according to claim 38 wherein the at least one light includes one or more of a red light emitting diode, a green light emitting diode, a blue light emitting diode and an infrared light source.
40. (currently amended) The method according to claim 38 wherein ~~the~~ each sorting device further comprises means for sensing light transmitted through the glass cullet, wherein ~~the~~ each sorting device determines the color of the glass cullet from the light sensed.
41. (currently amended) The method according to claim 40 wherein ~~the~~ each sorting device further comprises means for actuating coupled to the means for sensing, wherein the means for actuating directs the glass cullet to one of the output feeds depending on a signal provided by the means for sensing.
42. (currently amended) The method according to claim 29 wherein ~~the~~ each sorting device further comprises means for directing the object to one of the output feeds depending on a color characteristic of the object.
43. (currently amended) A multi-level sorting system for separating different colored cullets into cullets having substantially similar color characteristics comprising:
- a. a first means for sorting the cullets, wherein the first means for sorting directs the sorted cullets into more than two first output paths;
 - b. a second means for further sorting at least one received first output path, wherein the second means for sorting directs the further sorted cullets into more than two second output paths; and
 - c. a third means for subsequently sorting at least one received first output path received directly from the first means for sorting, and at least one received second output path, wherein the third means for sorting directs the subsequently sorted cullets into more than two output paths, wherein the first means, the second means and the third means for sorting sort cullets simultaneously.

44. (currently amended) A multi-level sorting system for separating a mixed stream of colored cullets into cullets having substantially similar color characteristics comprising:
- a. a first stage tri-sorter for sorting the cullets, wherein the first stage tri-sorter directs the sorted cullets into a plurality of first stage output paths;
 - b. a second stage tri-sorter coupled to the first stage tri-sorter, the second stage tri-sorter for sorting cullets in at least one received first stage output path, thereby forming a second set of sorted cullets, wherein the second stage tri-sorter directs the second set of sorted cullets into a plurality of second stage output paths;
 - c. a third stage tri-sorter coupled to the first and second stage tri-sorters, the third stage tri-sorter for sorting cullets in at least one received first stage output path received directly from the first stage tri-sorter, and at least one received second stage output path, thereby forming a third set of sorted cullets, wherein the third stage tri-sorter directs the third set of sorted cullets into a plurality of third stage output paths; wherein at least one of the first, second, and third stage tri-sorters has more than two output paths, wherein the first stage tri-sorter, the second stage tri-sorter and the third stage tri-sorter sort cullets simultaneously.
45. (previously presented) The multi-level sorting system according to claim 44 wherein cullets in one of the plurality of first stage output paths are sent to a rejected material bin.
46. (previously presented) The multi-level sorting system according to claim 44 wherein cullets in one of the plurality of second stage output paths are sent to a rejected material bin.
47. (previously presented) The multi-level sorting system according to claim 44 wherein cullets in one of the plurality of second stage output paths are sent to a high quality flint cullet bin.
48. (previously presented) The multi-level sorting system according to claim 44 wherein cullets in one of the plurality of third stage output paths are sent to a high quality green cullet bin.
49. (previously presented) The multi-level sorting system according to claim 44 wherein cullets in one of the plurality of third stage output paths are sent to a rejected material bin.

50. (previously presented) The multi-level sorting system according to claim 44 wherein cullets in one of the plurality of third stage output paths are sent to a high quality brown cullet bin.
51. (original) The multi-level sorting system according to claim 44 wherein each sorting device sorts the received cullets based on light transmission properties of the colored cullets.
52. (original) The multi-level sorting system according to claim 51 wherein each sorting device further comprises a light emitting source for transmitting at least one light of predetermined frequency through the glass cullet.
53. (original) The multi-level sorting system according to claim 52 wherein each sorting device further comprises a sensor module coupled to the light emitting source and configured to receive light transmitted through the glass cullet, wherein the sorting device determines the color of the cullet from the at least one light received.
54. (original) The multi-level sorting system according to claim 53 wherein the light emitting source includes one or more of a red light emitting diode, a green light emitting diode, a blue light emitting diode and an infrared light source.
55. (original) The multi-level sorting system according to claim 53 wherein each sorting device further comprises at least one actuator coupled to the sensor module, wherein the at least one actuator directs the cullet to one of the plurality of output feeds depending on a signal provided by the sensor module.
56. (original) The multi-level sorting system according to claim 44 further comprising at least one actuator coupled for directing the cullet to one of the plurality of output feeds depending on a color characteristic of the cullet.
57. (currently amended) A multi-level sorting system for separating a mixed stream of colored cullets into cullets having substantially similar color characteristics comprising:
 - a. a plurality of first stage tri-sorters for sorting the cullets, wherein the plurality of first stage tri-sorters direct the sorted cullets into a plurality of first output paths;

- b. a second stage tri-sorter coupled to the plurality of first stage tri-sorters, the second stage tri-sorter for sorting cullets in at least one received first output path from each first stage tri-sorter, thereby forming second sorted cullets, wherein the second stage tri-sorter directs the second sorted cullets into a plurality of second output paths; and
 - c. a third stage tri-sorter coupled to the plurality of first stage tri-sorters and the second stage tri-sorter, the third stage tri-sorter for sorting cullets in at least one received first output path received directly from each of the plurality of first stage tri-sorters and at least one received second output path, thereby forming third sorted cullets, wherein the third stage tri-sorter directs the third sorted cullets into a plurality of third output paths, wherein the plurality of first stage tri-sorters, the second stage tri-sorter and the third stage tri-sorter sort simultaneously.
58. (original) The multi-level sorting system according to claim 57 wherein cullets in one of the plurality of first output paths from each first stage tri-sorter are sent to one or more rejected material bins.
59. (original) The multi-level sorting system according to claim 57 wherein cullets in one of the plurality of second output paths are sent to a rejected material bin.
60. (original) The multi-level sorting system according to claim 57 wherein cullets in one of the plurality of second output paths are sent to a high quality flint cullet bin.
61. (original) The multi-level sorting system according to claim 57 wherein cullets in one of the plurality of third output paths are sent to a high quality green cullet bin.
62. (original) The multi-level sorting system according to claim 57 wherein cullets in one of the plurality of third output paths are sent to a rejected material bin.
63. (original) The multi-level sorting system according to claim 57 wherein cullets in one of the plurality of third output paths are sent to a high quality brown cullet bin.

64. (original) The multi-level sorting system according to claim 57 wherein each sorting device sorts the received cullets based on light transmission properties of the colored cullets.
65. (original) The multi-level sorting system according to claim 64 wherein each sorting device further comprises a light emitting source for transmitting at least one light of predetermined frequency through the glass cullet.
66. (original) The multi-level sorting system according to claim 65 wherein each sorting device further comprises a sensor module coupled to the light emitting source and configured to receive light transmitted through the glass cullet, wherein the sorting device determines the color of the cullet from the at least one light received.
67. (original) The multi-level sorting system according to claim 66 wherein the light emitting source includes one or more of a red light emitting diode, a green light emitting diode, a blue light emitting diode and an infrared light source.
68. (original) The multi-level sorting system according to claim 66 wherein each sorting device further comprises at least one actuator coupled to the sensor module, wherein the at least one actuator directs the cullet to one of the plurality of output feeds depending on a signal provided by the sensor module.
69. (original) The multi-level sorting system according to claim 57 further comprising at least one actuator coupled for directing the cullet to one of the plurality of output feeds depending on a color characteristic of the cullet.
70. (currently amended) A multi-level sorting system for separating a mixed stream of colored cullets into cullets having substantially similar color characteristics comprising:
 - a. a plurality of first stage tri-sorters for sorting the cullets, wherein the plurality of first stage tri-sorters direct the sorted cullets into a plurality of first output paths;
 - b. a second stage tri-sorter coupled to the plurality of first stage tri-sorters, the second stage tri-sorter for sorting cullets in at least one received first output path from each first stage tri-sorter, thereby forming second sorted cullets, wherein the

- second stage tri-sorter directs the second sorted cullets into a plurality of second output paths; and
- c. a third stage tri-sorter coupled to the plurality of first stage tri-sorters and the second stage tri-sorter, the third stage tri-sorter for sorting cullets in at least one received first output path received directly from each of the plurality of first stage tri-sorters and at least one received second output path, thereby forming third sorted cullets, wherein the third stage tri-sorter directs the third sorted cullets into a plurality of third output paths, wherein the plurality of first stage tri-sorters, the second stage tri-sorter and the third stage tri-sorter sort simultaneously;
- wherein at least one of the plurality of first stage tri-sorters, the second stage tri-sorter and the third stage tri-sorter comprises a light emitting source comprising one or more of a blue light emitting diode and an infrared light source.
71. (new) The system according to claim 10 wherein the light emitting source includes one or more of a red light source, a green light source, a blue light source and an infrared light source.
72. (new) The method according to claim 24 wherein the at least one light includes one or more of a red light source, a green light source, a blue light source and an infrared light source.
73. (new) The method according to claim 38 wherein the at least one light includes one or more of a red light source, a green light source, a blue light source and an infrared light source.
74. (new) The multi-level sorting system according to claim 53 wherein the light emitting source includes one or more of a red light source, a green light source, a blue light source and an infrared light source.
75. (new) The multi-level sorting system according to claim 66 wherein the light emitting source includes one or more of a red light source, a green light source, a blue light source and an infrared light source.